

DEPARTMENT OF THE AIR FORCE
Air and Space Basic Course (AETC)
Maxwell Air Force Base, Alabama 36112

LESSON PLAN

A1460, AIR AND SPACE POWER COMMAND AND CONTROL

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RECORD OF CHANGES

CHANGE NUMBER	REMARKS
New Lesson Plan	Supercedes ASBC lesson 1335 dated 7 Aug 00
Change 1	Updated lesson with current terms (see below)

SUMMARY OF CHANGES

Change 1: Added SOB 1.5, Updated Flight Commander Prep, Added ISR Division—Pp. P4-P6, Added ISR Division Sentence to HO-1, Added Instructor Note on Doctrine Terms (p. P3), changed all references to “aerospace” to “air and space.”

EDUCATIONAL GOALS

A1000 Area Objective: Apply air and space power capabilities and officership principles to warfighting.

A1400 Phase Objective: Comprehend how Joint operations are planned and executed at the strategic and theater/operational levels.

A1460 - AIR AND SPACE POWER COMMAND AND CONTROL

Lesson Objective 1: Know the purpose of selected Air and Space Operations Center (AOC) Divisions.

Samples of Behavior:

(R/S) 1.1 - Explain the purpose of the Strategy Division of an AOC.

(R/S) 1.2 - Explain the purpose of the Combat Plans Division of an AOC.

(R/S) 1.3 - Explain the purpose of the Combat Operations Division of an AOC.

(R/S) 1.4 - Explain the purpose of the Air Mobility Division of an AOC.

(R/S) 1.5 – Explain the purpose of the ISR Division of an AOC.

Lesson Objective 2: Comprehend the relationships between selected AOC Divisions.

Sample of Behavior:

(R/S) 2.1 - Explain the relationships between selected AOC Divisions.

Lesson Objective 3: Know the notional organization of a Wing Operations Center (WOC).

Samples of Behavior:

(R/S) 3.1 - Describe the Battle Management Center (BMC).

(R/S) 3.2 - Describe the Survival Recovery Center (SRC).

Lesson Objective 4: Comprehend the relationship and interaction between the AOC and the WOC.

Samples of Behavior:

(R/S) 4.1 - Describe the relationship and interaction between the AOC and the WOC.

(R/S) 4.2 - Explain why teamwork between the AOC and the WOC is vital to mission accomplishment.

Lesson Description: This lesson introduces each of the Air and Space Operations Center (AOC) divisions and how they work together to create an Air Tasking Order (ATO). This critical process guides the use of all air and space power in the theater. Next, this lesson introduces the components of the Wing Operations Center (WOC), including their contribution to the theater campaign. Finally this lesson discusses the interaction between the WOCs and the AOC.

Prerequisites: A1450, The JFACC

Preparation: Read A1460, Air and Space Power Command and Control.

Optional: N/A

Rationale/Linkage: This lesson belongs to the A1400 Phase of instruction, which primarily focuses on Joint warfighting at the strategic and theater/ operational levels. At the strategic level, the United States employs its Armed Forces as a Joint team to achieve national objectives. At the theater/operational level, this Joint team is organized into Unified Commands. Within the Unified Commands, air and space power is commanded and controlled by Air and Space Operation Centers (AOCs). This lesson begins with a discussion of the theater/operational-level AOC. Joint operations are at the very heart of the way US forces fight in war. In order to operate as a Joint team, operations must be well-organized and coordinated, which calls for clear lines of command and control. As an introduction to the A1600 Phase of instruction, which primarily focuses on Joint air and space warfighting at the theater/operational and tactical levels, this lesson explains how the theater/operational-level AOC interacts with the tactical-level WOC to accomplish these goals.

INSTRUCTIONAL PLAN

1. **TITLE AND LENGTH OF SEMINAR:** Air and Space Power Command and Control (1:00)
2. **RELATION TO OTHER INSTRUCTION:** This lesson prepares students to transition from the A1400 Phase of instruction (which primarily focuses on Joint warfighting at the strategic and theater/operational levels) to the A1600 Phase of instruction (which primarily focuses on Joint air and space warfighting at the theater/operational and tactical levels). Joint operations are at the very heart of the way US forces fight in war. In order to operate as a Joint team, operations must be well-organized and coordinated, which calls for clear lines of command and control. As an introduction to the A1600 Phase, this lesson explains how the AOC and WOC accomplish these goals. This lesson helps students understand how centralized control and decentralized execution of air and space forces enables successful campaign planning and effective employment of air and space power.

3. **GENERAL METHOD OF INSTRUCTION:**

- a. **Presentation Method:** Guided discussion

- b. **Time Outline:**

Segment Time	Total Time	Description
0:05	(0:05)	Introduction
0:10	(0:15)	MP I: AOC Divisions
0:15	(0:30)	MP II: AOC Division Interaction
0:05	(0:35)	MP III: WOC Divisions
0:20	(0:55)	MP IV: AOC/WOC Interaction
0:05	(1:00)	Conclusion

- c. **Instructor Preparation:**

- Review the lesson plan.
- Read A1460, Air and Space Power Command and Control.
- Read Chapter 5 of AFDD 2, Organization and Employment of Aerospace Power, pp. 71-83.

- Read Chapter 5 of AFDD 2-5, Information Operations, pp. 51-53.

d. Instructional Aids/Handouts:

- A1460-HO-1, “The ATO Process”

e. Student Preparation:

- Read A1460, Air and Space Power Command and Control.

f. Strategy: This lesson is a guided discussion. First, the students review the four divisions of an AOC, as presented in the reading. Briefly discuss each division separately with the students. Then, cover the ATO process in detail, using handout A1460-HO-1, “The ATO Process,” as a guide. This discussion should highlight the interaction between the five divisions of the AOC. Next, introduce the components of the WOC, as presented in the reading. At this point, tie the discussion back to the ATO process by discussing the interaction between the AOC and WOC, and why that interaction is important. Then use this opportunity to review the A1300 Phase of instruction on the Core Competencies and discuss how air and space command and control enables accomplishment of the Core Competencies, particularly A1310, Air and Space Superiority. In addition, relate the topic of air and space command and control to topics covered in Lessons A1450, The JFACC, and A1420, Service Perspectives: Army/Navy/ Marines. Finally, when discussing how the theater/operational-level AOC interacts with the tactical-level WOC, take the opportunity to give students a glimpse of the A1600 Phase of instruction, which focuses primarily on Joint air and space warfighting at the theater/operational and tactical levels.

g. References: N/A

4. DETAILS OF INSTRUCTION:

a. Introduction: 0:05 (0:05)

1) //Attention//

Someday, you might answer your secure phone, and hear, “Commander, this is an urgent message from the BMC. We just received the draft ATO from the AOC and discovered they’ve got us flying too many F-15 sorties tomorrow. How do you want to handle it?” Well, before you can handle it, you need to understand what I’m talking about!

2) //Motivation//

The A1400 Phase has been building up to this lesson! You’ve finally got all the pieces in place to start talking about air and space power employment at both the theater/operational and tactical levels. At the very least, by the end of this lesson you’ll understand the acronyms I just threw out at you.

3) //Overview//

We’ll begin by discussing the theater/operational command and control element, which is the Air and Space Operations Center, or AOC. This organization has five main divisions that integrate tightly. We’ll talk about the ATO process, which is used on a day-to-day basis within the AOC, and is critical to the employment of air and space power. Next we’ll shift gears and talk about the tactical level of the conflict with the Wing Operations Center, or WOC. We’ll discuss the two main components of the WOC, and how the WOC interacts with the AOC.

{Instructor Note: For an explanation on Joint Terms and their proper abbreviations, see Doctrine Watch #18 – Terminology.}

b. MP I: AOC Divisions: 0:10 (0:15)

QUESTIONS

LEAD OFF QUESTION (LOQ): WHAT IS AN AIR AND SPACE OPERATIONS CENTER (AOC)?

ANTICIPATED RESPONSES (AR):

- Theater/Operational-level command and control element for air and space power execution
- Controls all air assets in the theater of operation
- Creates daily ATO
- JFACC's headquarters

FOLLOW UP QUESTION (FUQ): HOW MANY DIVISIONS DOES AN AOC HAVE? WHAT ARE THEY CALLED?

AR:

- Five divisions:
 - Strategy Division
 - Combat Plans Division
 - Combat Operations Division
 - Air Mobility Division
 - ISR Division (Commander's Option per AFDD 2-5)

FUQ: WHAT DOES THE STRATEGY DIVISION DO?

AR:

- Provides daily guidance, based on JFACC/JFC direction and previous effort
- Maintains long-range plans

FUQ: WHAT DOES THE COMBAT PLANS DIVISION DO?

AR:

- Creates draft and final ATOs
 - Master Air Attack Plan (MAAP) Team develops an initial draft ATO 48 hours in advance of planned execution
 - ATO Production Team finalizes the draft ATO 24 hours in advance of planned execution

FUQ: WHAT DOES THE COMBAT OPERATIONS DIVISION DO?

AR:

- Monitors real-time execution of ATO
- Helps with assessment of the execution of the current ATO

FUQ: WHAT DOES THE AIR MOBILITY DIVISION DO?

AR:

- Handles intra-theater and inter-theater airlift
- Handles refueling requirements
- Handles medical evacuation (MEDEVAC) airlift requirements

***FUQ: WHAT DOES THE ISR DIVISION DO?**

AR:

- Responsible for ISR planning, integration, and assessment
- Unifies all ISR inputs to the commander
- Supports other AOC divisions in their core processes
- Produces the *reconnaissance, surveillance, and target acquisition* (RSTA) ATO annex

**{Instructor Note: AFDD 2-5 was published in its current form in 4 Jan 2002. The Air Force's recent decision to update its doctrine with regard to the organization of the AOC (I.e., adding an ISR Division at the Commander's discretion) is a great example of how our doctrine is continually changing. This point is made in our Theory, Doctrine, Objectives, & Strategy lesson, and is a great real-world example worth mentioning to the students.}*

INTERIM SUMMARY (Instructor Note):

1. Include students' ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION): NOW THAT WE'VE TALKED ABOUT EACH COMPONENT OF THE AOC, LET'S SEE HOW THEY WORK TOGETHER TO CREATE AN ATO.

c. MP II: AOC Division Interaction: 0:15 (0:30)

{Instructor Note: Give each student a copy of A1460-HO-1, "The ATO Process," for their reference during this discussion. Use this handout to guide the students through the ATO production process.}

LOQ: HOW DO THE AOC DIVISIONS INTERACT TO CREATE AN ATO?

AR:

- Strategy Division gives guidance to Combat Plans Division
- Within the Combat Plans Division:
 - Master Air Attack Plan (MAAP) Team develops an initial draft ATO 48 hours in advance of planned execution
 - ATO Production Team finalizes the draft ATO 24 hours in advance of planned execution
- Combat Operations Division monitors real-time execution of ATO, helps with assessment of the execution of the current ATO
- Air Mobility Division handles all airlift and refueling requirements
- ISR Division supports ISR requirements for the other four divisions, develops the RSTA ATO annex for tasking of ISR platforms

{Instructor Note: At this point in the lesson, the concept of the WOC has not been introduced. Save this discussion (using the handout) for MP III.}

INTERIM SUMMARY (Instructor Note):

1. Include students' ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION): THE AOC COMMANDS AIRPOWER ON THE THEATER/OPERATIONAL LEVEL. NOW, LET'S DISCUSS THE WING OPERATIONS CENTER, OR "WOC," WHICH COMMANDS AIRPOWER ON THE TACTICAL LEVEL.

d. MP III: WOC Divisions: 0:05 (0:35)

LOQ: WHAT DOES A WOC DO?

AR:

- Tactical control of aircraft within a theater
- Sorties start and end here

FUQ: HOW MANY DIVISIONS DOES A WOC HAVE, AND WHAT ARE THEY CALLED?

AR:

- Two divisions:
 - Battle Management Center (BMC)
 - Survival Recovery Center (SRC)

FUQ: WHAT DOES A BATTLE MANAGEMENT CENTER (BMC) DO?

AR:

- BMC is ultimately responsible for mission accomplishment and assessment
- BMC includes Wing leadership--the focal point for wing command and control, reporting, and threat warnings
- BMC receives the ATO from the AOC while still in draft form, and checks the Wing's ability to meet their projected taskings
- Once the ATO is finalized, the BMC monitors sortie generation
- BMC supervises recovery and regeneration of aircraft to meet future taskings

FUQ: WHAT DOES A SURVIVAL RECOVERY CENTER (SRC) DO?

AR:

- SRC is responsible for sustainment and survivability operations for the entire Wing
- SRC is the focal point for Security Forces, medical personnel, Civil Engineering, Communications, etc.
- SRC is critical to handling crises as they emerge to assure minimal impact to the Wing, overall

INTERIM SUMMARY (Instructor Note):

1. Include students' ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION): NOW THAT WE'VE TALKED ABOUT THE AOC AND THE WOC SEPARATELY, LET'S DISCUSS HOW THEY WORK TOGETHER.

e. MP IV: AOC/WOC Interaction: 0:20 (0:55)

LOQ: HOW DOES THE WOC INTERACT WITH THE AOC?

AR:

- WOC receives draft ATO from MAAP Team 24 hrs before execution
- WOC identifies Wing shortfalls in ability to support taskings, etc.
- WOC receives final ATO from ATO Production Team just prior to execution

FUQ: WHAT WOULD HAPPEN IF THE WOC DIDN'T INTERACT WITH THE AOC?

- Wing assets might get overtasked
- AOC wouldn't know about Wing crises
- AOC would lose WOC's tactical perspective, WOC would lose AOC's operational perspective

FUQ: WHY IS TEAMWORK VITAL BETWEEN THE AOC AND WOC?

AR:

- They represent two different levels of air and space power employment
 - AOC is at the theater/operational-level
 - WOC is at the tactical-level

(TRANSITION): NOW LET'S DISCUSS HOW AIR AND SPACE POWER COMMAND AND CONTROL TIES IN WITH WHAT YOU'VE ALREADY LEARNED IN PREVIOUS LESSONS.

LOQ: HOW DO THE AOC AND WOC ENABLE ACCOMPLISHMENT OF THE CORE COMPETENCY OF AIR AND SPACE SUPERIORITY?

AR:

- Assures centralized control/decentralized execution
 - All air and space forces centrally controlled by AOC
 - Execution (handled by decentralized WOCs) supports theater objectives

FUQ: HOW IMPORTANT IS THE JFACC TO THE AOC/WOC INTERACTION?

AR:

- The JFACC owns the ATO process
- The JFACC must settle disputes regarding how air and space power should be employed to meet national objectives

FUQ: BASED ON WHAT YOU KNOW OF THE JFACC'S RESPONSIBILITIES, COULD THIS JOB BE DONE WITHOUT BOTH THE AOC AND WOC? WHY NOT?

AR:

- Both are needed to keep track of assets

FUQ: WHAT WOULD HAPPEN IF THE WOC DIDN'T INTERACT WITH THE AOC?

AR:

- Wing assets might get overtasked

FUQ: HOW ARE OTHER SERVICES' PERSPECTIVES VITAL TO THE AOC?

AR:

- AOC must understand their methods of operation to support them better
- AOC needs liaisons to communicate their needs
- AOC coordinates all Services' airpower--must understand all Services!

FUQ: WHAT LONG-RANGE PLANNING GUIDES THE JFACC IN CREATING THE ATO?

AR:

- Deliberate Planning and/or Crisis Action Planning--i.e., development of campaign plans by the Combatant Commander and the Joint Force Commander
- Air campaign planning prior to the crisis--i.e., creation of the Joint Air Operations Plan, or JAOP

(INTERNAL TRANSITION): LET'S EXPLORE ONE MORE ASPECT.

LOQ: DOES THE ATO PROCESS ITSELF TELL YOU WHICH TARGETS TO HIT?

AR:

- No. Other tools and skills are needed.

{Instructor Note: Explain to students that the Master Air Attack Plan (MAAP) Team will have intelligence experts skilled in targeting. Primarily, this involves different methods of targeting, which we'll cover in A1620, Methods of Targeting. This mindset is crucial for the targeteers to get the right targets without wasting sorties.}

FUQ: WHAT ARE THE KEY POINTS TO REMEMBER ABOUT CREATING AN ATO?

AR:

- Communication is key!
- Organization helps solve problems
- The objective must be well-defined

f. Conclusion: 0:05 (1:00)

1) //Summary//

In this lesson, we've talked about Air and Space Power Command and Control. This is achieved through the command and control structures of the AOC and WOC. The Air and Space Operations Center focuses on the theater/operational level of war and consists of five major divisions. The AOC's primary purpose is to create a daily ATO for the entire theater. The ATO is created over a 48-hour period, changing hands many times before it's ready for execution. The Wing Operations Center focuses on the tactical level of war and has two major components. The coordination between these two levels of command--(the theater/operational-level AOC and the tactical-level WOC) is crucial to effective employment of air and space power.

2) //Remotivation//

Many captains have had the opportunity to work at AOCs and WOCs, and many of you will have this opportunity. You now should have a better understanding of how these two centers interact to employ air and space forces. The component that

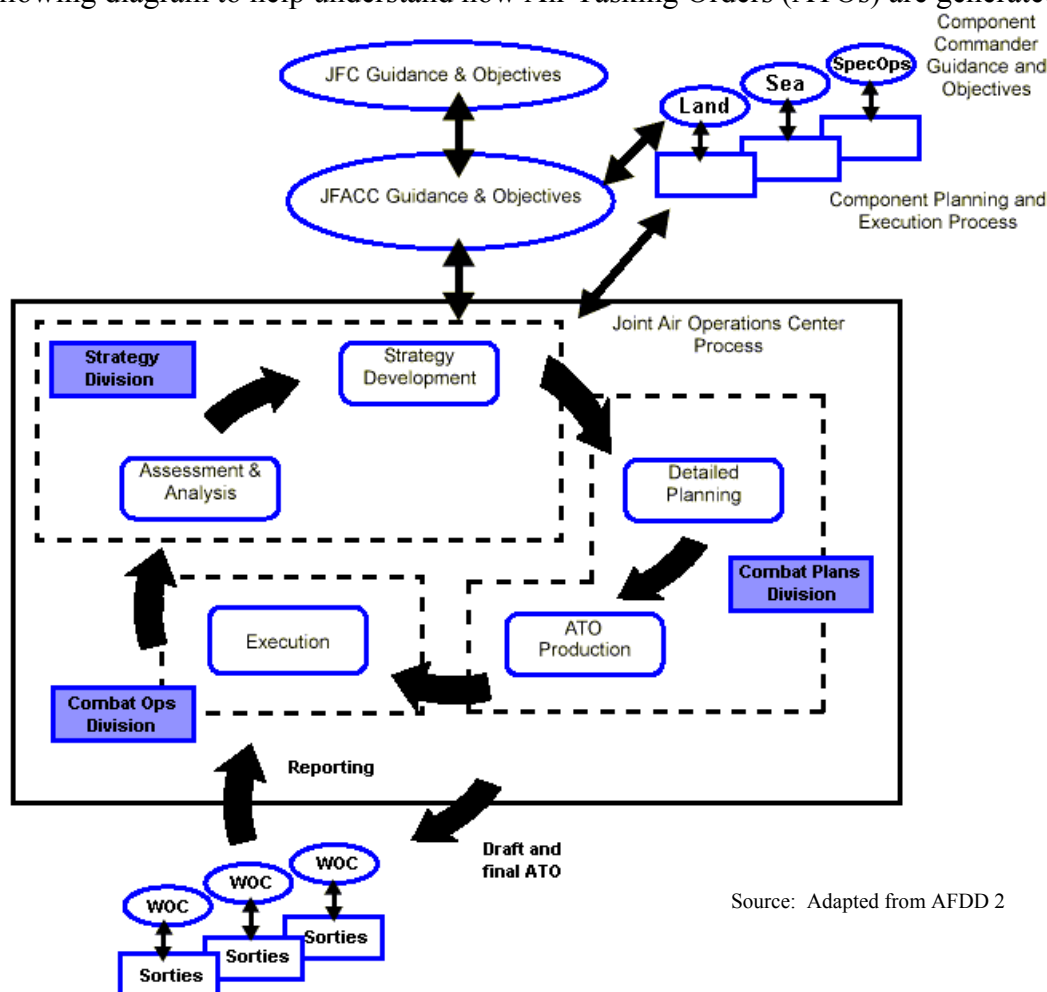
makes it all happen is the ATO: Without the ATO to guide the daily application of forces, it would be a confusing mess, since individual Wings wouldn't know how to employ their forces to achieve the Joint Force Commander's campaign objectives.

3) //Closure//

In this phase of instruction, you have seen how war planning begins at the strategic level and guides execution all the way down to the tactical level. Now, you can understand how the President's policy translates to a specific sortie. As we continue our studies, you'll learn about a planning element that guides the use of air and space power over the length of a campaign--not just for each day, like an ATO. This planning is called the Joint Air Operations Plan (a.k.a. the air campaign plan), which we'll talk about in the A1600 Phase of instruction.

The ATO Process

Use the following diagram to help understand how Air Tasking Orders (ATOs) are generated.



First JFACC guidance (based on direction from the JFC and requests from other component commanders) is passed to the Strategy Division within the AOC. They develop guidelines and concentration of effort that will appear in the ATO for any given day.

Second, this information is passed to the Combat Plans Division. The MAAP (Master Air Attack Plan) Team develops the MAAP in about 24 hours with a detailed planning process--the end result could be considered a draft ATO. Two copies of this draft are distributed: one copy is sent to the Wing Operations Centers (WOCs) as a heads-up of what will be expected of them; the other goes to the ATO Production folks to finalize the ATO in the last 24 hours before execution. The WOCs then get a final copy of this ATO to highlight their taskings for the next day.

Finally, the Combat Ops Division is monitoring the execution of the current ATO while the WOCs are busy generating and recovering sorties. The WOCs must provide feedback to give the AOC a realistic picture of the war. The Combat Ops Division also assists the Strategy Division in assessing the effort for possible changes or restrikes in the subsequent ATOs. During this entire process, the ISR division and the Air Mobility Division supports the intelligence and airlift requirements of the other four divisions.

During a conflict in which we employ air and space power, this circular process occurs over and over every day. Communication and continuity are essential to success!